3255 Salt Creek Circle, Suite 100
Lincoln, NE 68504-4778
p: 402.742.8140 | f: 402.742.8191
nebraskahospitals.org

Nebraska Hospital Association
The influential voice of Nebraska's hospitals

7 September 2018

The Honorable Brendan Carr, Commissioner
Federal Communications Commission
FCC Headquarters
445 12th St., SW
Room TW-A325
Washington, DC 20554

Honorable Commissioner Carr,

On behalf of the 90-member hospitals of the Nebraska Hospital Association (NHA), we are concerned about the need to improve our state's rural health care delivery system. We were pleased to learn of the details of FCC-19-112A1, FCC Connected Care Pilot Program. Telehealth and telemonitoring are both vital tools which can aid the rural and medically underserved areas of our state.

Rural health care providers are on the front lines, striving to provide quality medical care to their communities. This funding opportunity for our member hospitals and those in the coalition of entities we are collaborating with would do so much to further strengthen the telehealth and telemonitoring capabilities and services to the many rural citizens across our state.

We look forward to having the opportunity to work with you through the FCC Connected Care Pilot Program to further increase the access to health care services for rural and underserved areas throughout Nebraska. If we may be of any assistance in providing additional information you may require as you evaluate funding applications, please do not hesitate to contact us.

Sincerely,

Laura J. Redoutey, FACHE
President

2019 FCC Connected Care Pilot Program

Nebraska Collaborative Team

Response to Notice of Inquiry

WC Docket 18-213

Promoting Telehealth for Low-Income Consumers

8 September 2018

The Honorable Brendan Carr, Commissioner
Federal Communications Commission
445 12th St., SW, Room TW-A325
Washington, DC 20554

Honorable Commissioner Carr, et.al.

We thank you for the opportunity to comment on the proposed "Connected Care Pilot Program", designed for "Promoting Telehealth for Low-Income Consumers." This Response is our commitment for such programs as proposed by the FCC.

Our Nebraska Team is the ideal partner for the FCC's "Connected Care Pilot Program." We represent public and private for-profit and non-profit sector stakeholders which includes the State of Nebraska Offices of Health Disparities, Inequities and Rural Health; the Nebraska Hospital Association, the influential voice of the 90 members Nebraska hospital and health systems; a major Nebraska Health System, Bryan Health and the Heartland Health Alliance with their 48 affiliate hospitals and Critical Access Hospital Network with 30 network hospitals throughout Nebraska, Missouri and Iowa; and technology partners MyVitalz, with a HIPAA and ePHI Compliant 2Net Hub based cellular Remote Patient Monitoring platform and H4 Technology's HL7 compliant Data Integration Engine for EHR/EMR and Health Internet Exchanges.

Our Team represents organizations with the required skill sets, significant past performance, technological end-to-end solutions, fiscal, logistical and operational management skills, all of which are necessary to facilitate a program of this scope which will produce measureable and replicable results.

Should an RFP develop from this Notice of Inquiry, our Team would like to base our proposed work and pilot primarily on Diabetes. Our substantial work with this disease state and understanding of it as a "predicate" disease would overwhelmingly benefit the masses of the underserved. We believe a Grant of $5M to us as a Partner in this collaborative could support up to 500 low-income consumers with a socio-economic diversity of Tribal, Veteran, and diverse Hispanic and Immigrant populations.

The following narrative was written on behalf of the Nebraska collaborative partners as represented above. Thank you on our behalf.

Justus M Decher, Founder

Your Connection to Better Health

justusmdecher@myvitalz.com

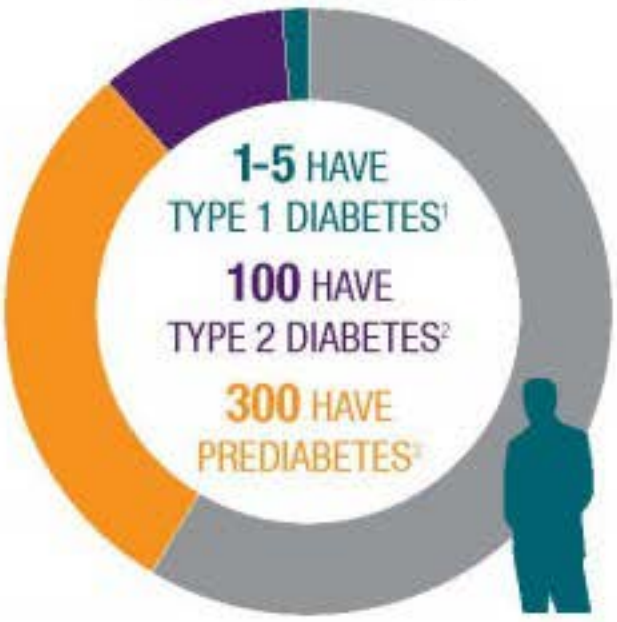
https://www.linkedin.com/in/justus-m-decher-b7b77824

ENDOCRINE FACTS AND FIGURES
FIRST EDITION

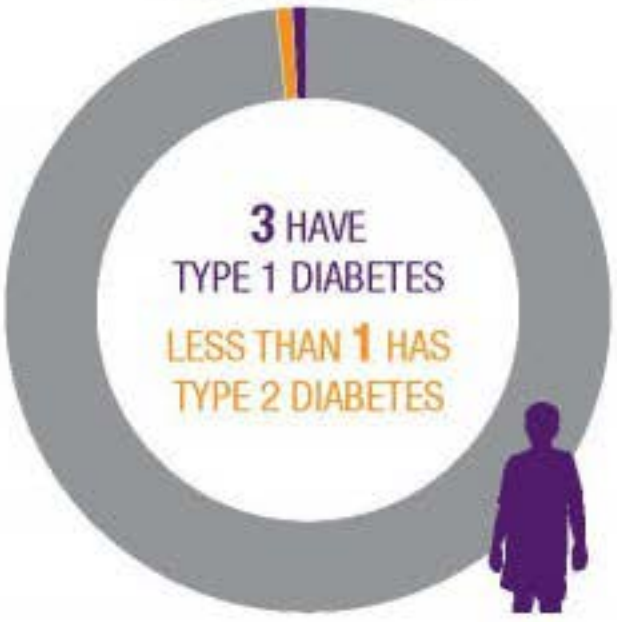
DIABETES

OVER **29 MILLION AMERICANS** HAVE DIABETES

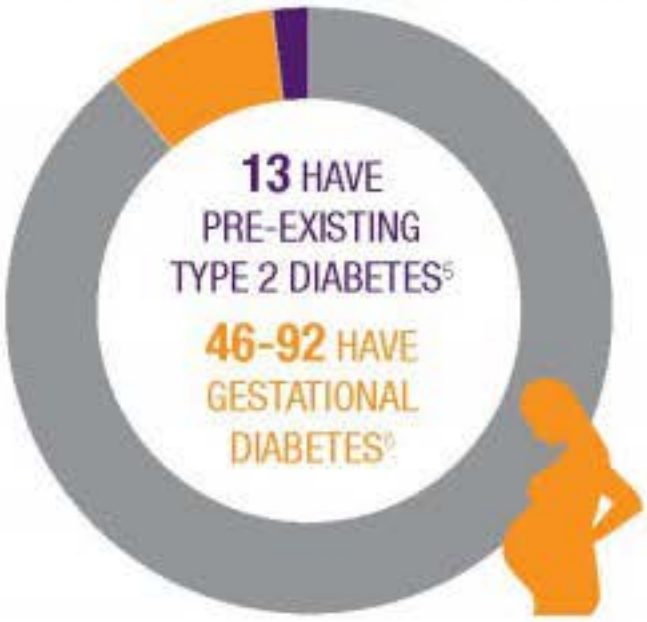
FOR EVERY **1,000 AMERICAN ADULTS** (20+ YEARS)



FOR EVERY **1,000 AMERICAN YOUTH** (10-19 YEARS)[4]



FOR EVERY **1,000 AMERICAN FEMALES WHO ARE PREGNANT**



FOR EVERY **100 AMERICANS** WITH DIAGNOSED DIABETES

COST BURDEN

IN 2012, DIABETES COST THE US HEALTHCARE SYSTEM

$245 BILLION[10]

BY 2021, IT IS ESTIMATED TO COST AS MUCH AS

$512 BILLION[11]

TOTAL ANNUAL HEALTHCARE COSTS (PER CAPITA)

$11,700 ADULT WITH DIAGNOSED DIABETES vs. **$4,400**[11] ADULT WITHOUT DIABETES

$9,061 YOUTH WITH DIAGNOSED DIABETES vs. **$1,468**[12] YOUTH WITHOUT DIABETES

HAVE DIABETES[3]

TYPE 2 DIABETES ACCOUNTS FOR **90-95%** OF ALL DIABETES CASES.

Source:

1 Menke et al. *Epidemiology*. 2013;24(5):773-774.
2 Selvin et al. *Annals of Internal Medicine*. 2014;160(8):517-525.
3 National Diabetes Statistics Report. Centers for Disease Control and Prevention. 2014
4 Dabelea et al. *The Journal of the American Medical Association*. 2014;311(17):1778-1786.
5 Lawrence et al. *Diabetes Care*. 2008;31(5): 899-904.
6 DeSisto et al. *Preventing Chronic Disease*. 2014;11:E104.
7 Cheng et al. *American Journal of Epidemiology*. 2006;164(9):873-880.
8 Koopman et al. *Annals of Family Medicine*. 2006;4(5):427-432.
9 Zhang et al. *The Journal of the American Medical Association*. 2010;304(6):649-656; Wong et al. *American Journal of Ophthalmology*. 2006;141(3): 446-455.
10 American Diabetes Association. *Diabetes Care*. 2013;36(4):1033-1046.
11 Vojta et al. *Health Affairs (Project Hope)*. 2012;31(1):20-26.
12 Shrestha et al. *Diabetes Care*. 2011;34(5): 1097-1101.

For more information, e-mail factsandfigures@endocrine.org

ENDOCRINE SOCIETY

Foreword

The utilization of remote patient monitoring/telemonitoring improves care to the at-risk and high-risk patient population and subsequently sets a replicable standard-of-care for hospitals, clinics and other providers for the chronically ill and medically underserved. Remote patient monitoring offers opportunities for better patient outcomes through monitoring for early detection, intervention and preventative care while resulting in cost savings to the healthcare organization and the health care industry. These devices include blood pressure, weight scales, glucometers, pulse oximeters, thermometers, spirometers and other devices.

At-risk and high-risk patients living in rural areas presents multiple barriers, one of which is limited access to care due to distance[1]. Rural populations with low socioeconomic status have poor outcomes and the lack of primary care providers in rural and underserved areas demands a shift in healthcare practices. Through the widely validated CCM, it is possible to deliver care to patients in their homes in remote underserved areas. Chronic condition populations with unmet social determinants of health have poor outcomes and ultimately higher-costs. The ability to serve this increasingly at-risk population sets a predicate of care throughout Rural Nebraska.

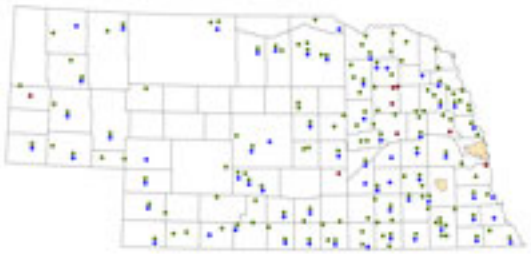
Employing this technology, we…**1)** create a scalable platform allowing Healthcare providers to monitor more patients which have failed to improve in the traditional clinic setting and manage this population, **2)** monitor patients at home in their preferred environment, **3)** improve patient compliance by eliminating patient travel time and missed workdays to visit the clinic, **4)** communicate patient outcomes with them in near real-time about the effectiveness of their care-plan and **5)** significantly reduce readmissions, ED visits, and length of stay in acute care settings. Other measurable benefits include reduced in- person visits, lower mortality rates and emergency admissions, decreased readmissions and shorter recovery periods.

The nations population health growth is being driven by a number of factors including the increasing number of baby-boomer population with multiple chronic health illnesses, behavioral and social issues that require constant monitoring. Healthcare organizations are now using these connected devices to deliver a better quality of care resulting in better clinical outcomes.

Nebraska's Profile

Nebraska covers 76,872 square miles, with a 2017 estimated population of 1,920,076 people – with almost 35% of the population living in rural areas (USDA-ERS). Lincoln, the capital, is located in the southeastern region of the state. The state's largest cities (Lincoln, Omaha, and Bellevue) and more than half the state's population is concentrated in just three metropolitan counties - Douglas, Sarpy and Lancaster.

Nebraska Rural Healthcare Facilities



View full-size map

There are 88 hospitals in Nebraska (Kaiser, 2016), 64 of which are identified as Critical Access Hospitals (Flex Team, 7/2018). There are 141 Rural Health Clinics in the state (CMS, 2017), and 7 Federally Qualified Health Centers provide services at 48 sites (NACHC, 2016). Nebraska's not-for-profit hospitals and public health departments are connected to a telehealth backbone that uses T1 lines and cable lines for connectivity. Additional CRHC's will be added to the same network in the future.

Selected Social Determinants of Health for Rural Nebraska

7% of its residents lack health insurance (Kaiser, 2016). According to the USDA Economic Research Service, the average per capita income for Nebraskans in 2016 was $50,029, although rural per capita income lagged at $47,349. The ERS reports, based on 2016 ACS data, that the poverty rate in rural Nebraska is 12.2%, compared with 11.0% in urban areas of the state.

According to 2016 data from the U.S. Census Bureau, 88.9% of the state's population is white, 5.0% is African-American, 2.5% is Asian, 1.4% is American Indian or Alaska Native, 0.1% is Native Hawaiian or Other Pacific Islander, and 10.7% is of Hispanic or Latino origin.

Rural Economic Income Disparities: There are 386 persistent poverty counties in the United States, and 340 are in non-metropolitan counties. The highest poverty rates are found in rural counties that are not adjacent to metropolitan counties. The impacts on workforce distribution include lower reimbursement levels, less ability to recruit and retain health professionals, higher rates of un-insurance and underinsurance, less demand for private health care, and fewer rural training sites.

Bryan Health

Bryan Health is a Nebraska governed, nonprofit health system with a mission to advance the health of individuals in our region through collaboration with physicians and communities. Bryan Health is the sponsoring organization for the Heartland Health Alliance (HHA), with 48 affiliated hospitals, and a Critical Access Hospital Network with 30 network hospitals throughout Nebraska, Missouri and Iowa.

Throughout the last two years, five HHA members have participated in a pilot collaborative funded by NDHHS focused on improving outcomes for diabetic patients. Results of the collaborative include an *8.6% increase in well-controlled diabetics, a 13.4% increase in statin use, and a 12.9% increase in documentation of evidence based preventative care*. Furthermore, two consultants from the Bryan Health Rural Division provided practice level consulting in Lexington, Nebraska that focused work on a *high-burden population affected disproportionately by high blood pressure, high cholesterol, and diabetes due to socioeconomic factors*. Results of this work include a 40% improvement in access to care by engaging non-physician team members, creation of quality focused dashboard measures that align with strategic initiatives, and a 100% increase patient referrals to diabetic education.

Additionally, the HHA has a partnership agreement with the Bryan Health Diabetes Center to allow 24 hospitals to offer accredited diabetes education programming through the American Diabetes Association. This effort supports the delivery of quality diabetes self-management education to high burden populations. Bryan Health has a designated coordinator who oversees the planning, implementation, and evaluation of the program. The benefits to rural partners utilizing this service include enhanced access and coordination of care.

Through a partnership with NDHHS, Bryan Health received a mini diabetic grant over three months. The results of this grant are as follows: One HHA member hospital completed training and is now an official ADA satellite site. Through collaboration with Bryan Telemedicine, an underserved HHA member hospital has begun offering ADA approved diabetic education. They were able to see three patients and have established a waiting list of additional patients that need the service.

Finally, through workflow improvement work, Lexington Regional Health Center was able to increase their patient referrals to their ADA approved diabetic education program by 100%. The foundational clinic management work that was completed Lexington (an HHA member hospital), was selected for national recognition at the National Rural Health Association's Annual Conference. There is synergy between ongoing work in Lexington at the schools and the work that is already being done by University of Nebraska Lincoln faculty.

Additionally, Nebraska leads the nation in Medicaid reimbursement for remote patient monitoring. Out of the 29 states that offer some type of Medicaid reimbursement, Nebraska is the least restrictive and allows for $6/day all-inclusive. NDHHS reimbursements for Diabetic Test Strips, generally a cost prohibitive issue that leads to reduced testing and subsequent poorer health outcomes.

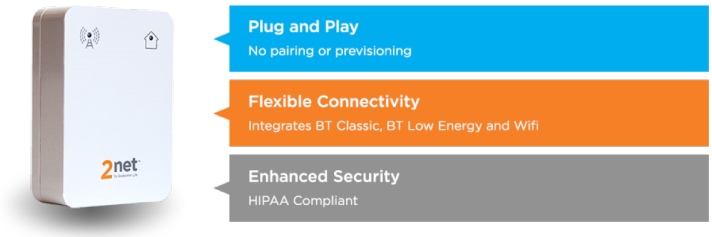
Understanding the Issues - Rural America's Broadband Internet Crisis

In Rural America 39% of rural Americans lack access to the Internet according to a 2017 FCC report (rural America covers 97 percent of the nation's land area but only contain 19.3 percent of the population…about 60 million people). Still, other obstacles remain, including an FCC wireless coverage map that determines whether communities get subsidies to expand wireless connectivity services.

Without a major improvement in broadband capacity, the widespread use of telehealth services is unlikely to happen where these services are needed the most.

MyVitalz™ is a certified QualcommLife 2net integrator and provides the 2net™ Hub as an alternative to "Rural America's Broadband Internet Crisis" (https://www.linkedin.com/pulse/rural-americas-internet-crisis-justus-m-decher/). The 2net Hub is a remote healthcare gateway, which plugs into a standard 110V electrical outlet in the wall and can capture readings from diverse medical devices deployed in the home. The patient doesn't have to do anything except use the device. The device retains the data until it wirelessly encounters the hub, which then transfers the information to a secure cloud service. The data is then passed on to customer systems like care-coordination portals, hospital Web pages, or electronic medical records repositories. Devices can communicate with 2net today for both diagnostics (weight scales, blood-pressure cuffs, coagulation meters) and treatment (CPAP machines) through short-range radio (Bluetooth, Bluetooth Smart, Wi-Fi and ANT+™) technology. It serves as the corridor for medical device connectivity.

Unlike traditional cellular calls, the medical device only sends very small data packets, therefore, not requiring much signal strength to send secure biometric data up to the secure cloud portal. In Rural America this is more than adequate to securely send RPM data.



Increased Bandwidth and Coverage

- Reduced latency, near real-time data
- Wider network accessibility for outlying areas
- Vulnerability management and policy compliance scan performed weekly

Medical-Grade Infrastructure

- Data in transit Transport Layer Security (TLS) 1.2
- Data at rest encrypted with AES-256
- FIPS 140-2 compliant security standards
- HIPAA compliant Web Service

Similar mHealth solutions are profiled in case studies through the nation and are recognized as a secure, reliable and an effective transmission of patient information in a secure, HIPAA and ePHI Compliant driven healthcare industry.

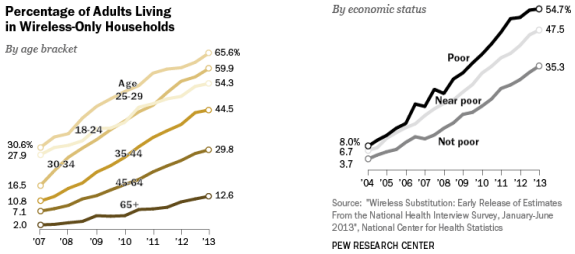
The costs associated with RPM (tele monitoring) are generally displayed as follows:

- By Kit Configuration (CHF, COPD, Hypertension, Diabetic) or FDA Class I, II or 510K Clinical devices (either lease or purchase)
- Monthly Subscription Rate/pppm (per patient/per month)
- Data Communication Fee

Points of attention:

- Target demographics majority is Wireless based (refer to graph below)
- Solutions based on telephone jack technology will not work
- Service interruptions (disconnections–landline)

Cellular transmission of biometric data is more secure and reliable than wireless



The wireless-only lifestyle is especially predominant among the poor and the young. According to the CDC, A majority of adults living in poverty (54.7%) lived in a wireless-only household, versus 47.5% of what the CDC calls the "near-poor" and 35.3% of non-poor adults; wireless-only households also predominate among Hispanics, renters and adults living with roommates.

Workforce Shortages (Physician and Nurses)

According to the National Rural Health Association (NRHA) the population of rural America constitutes about 20 percent of the total population, or 62 million people living outside metropolitan statistical areas. In 2005, only 11.4 percent of physicians practiced in rural locations. In recent years, shortages of non-physician providers including nurses, midlevel providers, dentists, pharmacists, radiology and laboratory technicians, and mental health professionals have also become more apparent. Problems with the distribution of physicians and other health professionals, as well as recruitment and retention issues in general, are ongoing for rural areas, especially those that compete with urban areas to maintain an adequate workforce.

The only way to mitigate the workforce shortage demands is to adapt scalability through technology! "Doing More with Less" is what the healthcare workforce has to contend with on a daily basis.

With telemonitoring, one-clinician can handle up to 250+ patients in an eight-hour day. This includes analyzing the daily incoming data and making outgoing phone calls to patients in need of immediate care.

Cited Example

MyVitalz was a finalist for the most recent VA National Home TeleHealth Program. The following VA 2016 statistics will provide the FCC with further impetus on the effectiveness of the program. Still, other programs cited by Commissioner Carr also contribute to the worthiness and validity to further expand on already proven models of remote patient monitoring.

VA Telehealth Numbers FY2016

- In fiscal year (FY) 2016, about 12% of Veterans received elements of their care via telehealth.
- Telehealth in VA provides mission-critical services that help Veterans to live independently in their own homes and local communities.
- The number of Veterans receiving care via VA's telehealth services grew approximately 4% in FY16, and is anticipated to grow by approximately 4% in FY17.
- VA provided care to more than 702,000 patients via the three-telehealth modalities. This amounted to over 2.17 million telehealth episodes of care.
- Forty-five prevent 45% of the Veterans lived in rural areas and may otherwise have had limited access to VA healthcare.

VA Telehealth Outcomes – Improved patient outcomes resulting in reduced utilization of inpatient care in FY16:

- Veterans enrolled in Home Telehealth for non-institutional care needs and chronic care management had a 59% decrease in VA bed days of care and a 31% decrease in VA hospital admissions
- Mental Health services provided to Veterans via Clinical Video Telehealth (TeleMental Health)
- reduced Acute Psychiatric VA bed days of care by 39% and a 32% decrease in VA hospital admissions.

MyVitalz™, LLC.

1209 Harney Street, Suite 200

Omaha, NE 68102-1823

402.515.7509

https://myvitalz.com